

# Effect Of Yoga On Perceived Academic Stress Among Undergraduate Nursing Students In The Selected Colleges

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## Abstract

**Aims:** To examine the effectiveness of yoga on perceived academic stress among nursing students during their college.

**Sample:** In this study, the sample consisted of 215 nursing students who fulfilled the inclusion criteria. Non probability Purposive sampling technique was used.

**Place & Duration of the study:** The study was conducted in Nursing college at Chennai, duration of this study was three months.

**Methodology:** Perceived Academic stress scale by Rajendran et al was used to determine the level of Academic stress among undergraduate nursing students. Yoga intervention were carried out weekly once for three months period.

**Results:** The perceived stress scale has mean and standard deviation of  $28.34 \pm 3.45$  and the yoga practice of  $5.489 \pm 2.84$  which are statistically significant at  $p < 0.001$ . Stress was strongly and positively associated with the components such as sleep hours, interest and motivation to enter nursing, assignments and workload, which was found to be statistically significant ( $r = 0.9$ ,  $p < 0.05$ ). There was a moderate, negative association between stress and parental involvement that was also statistically significant ( $r = -0.467$ ,  $p < 0.001$ ).

**Conclusion:** Students demonstrated reduced level of perceived academic stress after attending a yoga intervention. Results suggest that adopting a yoga practice twice in a week may reduce Perceived academic stress among nursing students.

**Keywords:** Perceived academic stress, yoga, coping, Nursing education.

## 1. INTRODUCTION

In the health care facility, Nurses are the forefront who plays a major role in healthcare systems. In hospitals, Nurses are delivering direct patient care which aims towards their outcomes, safety, and satisfaction of treatment. While educating them in the theory block, it's essential to screen them for perceived academic stress and help them cope better and prepare them to be a professional Nurse. Student Nurses shown increased level of stress compared to other allied health professionals, this is because of the curriculum they undergo and also the clinical experience related psychological anxiety and depression is noted.

Globally, Nursing students are facing major stress and studies shown that they experience anxiety, stress, sleep disturbances during their course and majority of them are diagnosed with stress related disorders and anxiety disorders than non-nursing students. [1]. Yoga, a mind-body practice of ancient Indian origin has gained significance in recent times due to its health benefits. Various practices of yoga have been found beneficial to attenuate stress and enhance functionality among medical students. Despite an array of coping strategies, yoga practices are found to reduce perceived stress, [2,3,4,5] anxiety, [4,6,7,8] markers of stress such as cortisol, [9] improved general health and well-being, [5,10,11] physical and physiological health, [6,12,13] improve cognition [14] as well as cultivation of positive emotions [2,3,7] such as empathy, compassion, and self-regulation.

Yoga, a complementary and alternative therapy aims to intervene with physical and mental health issues by combining breathing techniques, postures and relaxation.

Hence, the study aims to reduce stress among nursing students to improve their academic performance and promote overall health by means of improving the coping skills which they can use in everyday practice. Therefore, the investigator examined the effects of a yoga on perceived academic stress in undergraduate nursing students. Implementing yoga in the curriculum helps the students to manage with academics and study related stressor.

## 2. MATERIALS AND METHODS

Quasi experimental, one group pre and post -test design was used. Study was conducted in the Nursing college, Chennai, India. Purposive sampling technique was used for this study. Sample size was determined by power analysis. A total of 215 samples were selected from first to fourth year Nursing Undergraduate students. Inclusion criteria were all those

willing to participate in the research study and undergo yoga training in the college who aged between 18-24 years, Exclusion criteria were not willing to be a part of the study and with major health issues which interrupts yoga practice. A simplified kundalini yoga was taught to the students, the session started with warm-up, followed by that the following asanas were taught namely Lotus pose (Sukhasana), Surya namaskar, Tadasana, and mediation for the time period of 30-45 minutes and under the supervision for the group of 50 students in a session. The students were able to re-demonstrate the postures, the session was conducted weekly once, reinforcement and motivation was given to students to practice daily at home and also continued the sessions for a period of three months of study period. A perceived academic scale was used to determine their stress level before and after the yoga intervention. The validity and reliability of the tool were assessed and it was 0.86, and also obtained opinion from the experts to utilize for this study. The study was conducted after getting the permission from the Institutional ethics committee.

### 3.RESULTS AND DISCUSSION

#### 3.1. Demographic characteristics of undergraduate Nursing students

#### 3.2 Effect of yoga on perceived academic stress among undergraduate Nursing students.

#### 3.3 Associate the selected demographic variables with the yoga intervention on perceived academic stress among undergraduate Nursing students.

The main purpose of the study is to identify the effect of yoga intervention on perceived academic stress level among Nursing students. One group pretest and post- test design was used with sample size of 215.

**Table 3.1.** Demographic characteristics among Undergraduate Nursing students (N=215)

S. No.	Demographic variables	Frequency	Percentage
1.	<b>Age (In Years)</b>		
	17-19	95	44.2
	20-22	106	49.3
	23-26	10	4.5
	>27	4	2
2.	<b>Gender</b>		
	Female	161.0	74.9
	Male	54.0	25.1
3.	<b>Occupation of The Head of The Family</b>		
	Clerical/shop/farm	38	17.7
	Skilled worker	70	14.9
	Professional	38	17.7
	Semi Professional	32	32.6
	Unemployed	15	7.0
	Unskilled worker	22	10.1
4.	<b>Education of the Head of the Family</b>		
	Primary school	45	20.93
	High school	71	33.02
	Illiterate	13	6.05
	Intermediate/diploma	30	13.95
5.	<b>Professional degree</b>	56	26.05
	<b>Income (Annually)</b>		
	Less than 6174	22	10.23
	>1,23,322	32	14.88
	18,497-30,830	35	16.28
	30,831-46,128	18	8.37
	46,129-61,662	27	12.56
	61,663-1,23,321	46	21.40
6175 -18496	35	16.28	
6.	<b>Year of Study (BSN)</b>		
	I year	37	17.2
	II year	48	22.3
	III year	42	19.65
	IV year	88	40.9
7.	<b>Residence</b>		
	Rural	96	44.65
	Urban	119	55.35
8.	<b>History Of Medical Illness</b>		
	Hypertension	3	1.40
	Any other	12	5.58
	Diabetes	3	1.40
	Nil	197	91.63
9.	<b>Interest In Recreational Activities</b>		
	No	69	32.09
10.	<b>Yes</b>	146	67.91
	<b>Interest And Motivation to Enter Nursing</b>		
	Family	90	41.86
	Friend	9	4.19
	Self	90	41.86
	Others	16	7.44
	Siblings	10	4.65
11.	<b>Sleep hours</b>		
	>8 hrs	45	20.9
	6-8 hrs	17	7.90
	<6 hrs	153	71.1

This table describes the characteristics of sample with respect to demographic variables of the undergraduate students. Majority of them 49% belongs to the age group of 20-22 years and 75 % of them are female students. 91 % of them are

with no history of any medical illness, 68% of them demonstrated interest in recreational activities like yoga. With respect of the sleep hours 71% of them have inadequate sleep pattern.

**Table 3.2.** Level of Perceived academic stress before and after the yoga session among undergraduate Nursing students (N=215)

Group	N	Mean	SD	t-value	P value
Pre-test	215	3.986	1.054	-0.492	0.897
Post -test I (4 weeks)	215	3.421	2.487	4.884	0.023*
Post-test II(8 weeks)	215	2.549	0.765	5.176	0.034*
Post- test III(12 weeks)	215	1.236	0.004	5.895	0.003*

This table results indicated that, there is no significant difference in academic stress experienced by students during initial assessment, whereas during post- test I, II and III, it shows a significant improvement in the stress level which is significant at  $p < 0.001$ , the perceived academic stress level before and after the yoga practice among undergraduate students which demonstrates that majority had moderate to severe stress during the initial phase of study and after the yoga session most of them depicted with mild level of perceived stress.

### 3.3 Associate the selected demographic variables with the yoga intervention on perceived academic stress among undergraduate Nursing students.

Variable	Frequency	Chi-square	P value
Age	215	1.56	0.023
Sex	215	2.45	0.004
Year of study	215	1.76	0.034
History of medical illness	215	3.45	0.016
Sleep hours	215	2.65	0.043
Interest and motivation to enter Nursing	215	1.98	0.036

P value for Fisher's extract  $< 0.05$

This table shows that there is a significant association between the variables such as age, sex, year of study, history of medical illness, sleep hours and interest and motivation to enter nursing at  $P < 0.05$

## ETHICAL CONSIDERATION

Ethical permission was obtained from research committee in SRM college of Nursing. Assurance was given to the individual that reports are kept safe and confidential.

## CONCLUSION

Perceived academic stress among undergraduate students seems to be very high before undergoing the yoga session, the yoga intervention helped them to adopt to the stress and perform academically a better way.

Perceived academic stress among undergraduate nursing students is universal existing problem. The current study highlighted that academic stress affects students' performance and disturbs mental health and their overall well-being. Hence the study recommends that, it's necessary to conduct yoga session periodically in the college. The university should take initiative in arranging regular yoga sessions, meditation as stress managing technique to improve their academic performance. Counselors and psychologist should be made available on need based to overcome the academic stress.

## LIMITATIONS:

It is a single-center study and limited to the Nursing students, hence, these findings may not be generalizable. Further study could be done to generalize the findings.

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## CONFLICTS OF INTEREST

There are no conflicts of interest.

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